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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,304	04/01/2004	Shinya Miyaji	108421-00095	8595

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EXAMINER

ROMAN, LUIS ENRIQUE

ART UNIT PAPER NUMBER

2836

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/814,304

Applicant(s)

MIYAJI ET AL.

Examiner

Luis Roman

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

Applicant amendment filed on 06/12/06 has been entered. Accordingly claims 2, 4, 6 & 8 have been kept original, claims 1 & 5 have been amended and claims 3 & 7 have been cancelled. New claims 9 & 10 were added. It also included remarks/arguments.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1, 2, 4 & 9** are rejected under 35 U.S.C. 102(e) as being anticipated by Kanno et al. (US 6646233).

Regarding claim 1 Kanno et al. discloses an electrostatic chuck (abstract) comprising: a substrate (abstract <ceramic plate>); a dielectric layer formed by thermal spraying on an upper face of the substrate (col. 15 lines 09-17), an internal electrode embedded in the dielectric layer (col. 4 lines 51-54 & Fig. 7 element 17); a feeder terminal portion extending from a lower face of the substrate to the internal electrode (col. 10 lines 1-18 & Fig. 7 elements 20<shaft>, 43<spring>, 50<guide>, 49<bolt>, 51<plug>, 17<electrode>); and an electrode provided in the feeder terminal portion (Fig. 7 element 51), wherein the feeder terminal portion is composed of members which are fixed to each other by brazing (col. 15 lines 09-17<base 67 & dielectric 68 are integrated

together by brazing>), diffusion bonding, or soldering, and wherein the feeder terminal portion and the substrate are fixed to each other by mechanical joining (Fig. 7 elements 15, 49, 50, 51).

Regarding claim 2 Kanno et al. discloses the electrostatic chuck according to claim 1. Kanno et al. further discloses wherein the feeder terminal portion is structured so as to be removably mounted to the substrate (Fig. 7 feeder bolted by elements 49).

Regarding claim 4 Kanno et al. discloses the electrostatic chuck according to claim 1. Kanno et al. further discloses wherein the electrode provided in the feeder terminal portion is made of an elastic body (col. 10 lines 19-35).

Regarding claim 9 Kanno et al. discloses the electrostatic chuck according to claim 1. Kanno et al. further discloses wherein the dielectric layer has a recess formed thereon, the internal electrode has exposed portion which is exposed to the feeder terminal portion in the recess, the electrode being provided at the exposed portion of the internal electrode in the recess so as to be apart from the dielectric layer and project from the recess to the feeder terminal portion (Fig. 7 elements 20<shaft>, 43<spring>, 50<guide>, 49<bolt>, 51<plug>, 17 electrode>).

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 5, 6, 8 & 10** are rejected under 35 U.S.C. §103(a) as being unpatentable over Harada et al. (US 6771483) in view of Watanabe et al. (US 5625526) and Kanno et al. (US 6646233).

Regarding claim 5 Harada et al. discloses a production method for an electrostatic chuck comprising steps of: forming a first dielectric layer by thermal spraying on an upper face of a substrate; forming an internal electrode by thermal spraying on an upper face of the part of an electrode and the first dielectric layer, forming a second dielectric layer by thermal spraying on an upper face of the internal electrode (col. 4 lines 44-56 & Fig. 1 elements 3, 4, 5).

Harada et al. does not disclose providing a part of an electrode and a jig on a substrate followed by removing the jig from the substrate or mounting a feeder terminal portion to the substrate by mechanical joining.

Watanabe et al. teaches providing a part of an electrode and a jig on a substrate (col. 11 lines 31-42 & Fig. 11) followed by removing the jig from the substrate (col. 12 lines 10-21 & Fig. 11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Harada et al. device with the Watanabe et al. device features because the use of a jig has the advantage of alternatively hold the machine while the objects are manipulated or vice versa. The jig is used for alignment of the edges of electrostatic chuck substrates.

Kanno et al. teaches mounting a feeder terminal portion to the substrate by mechanical joining (Fig. 7 elements 15, 49, 50, 51).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Harada et al. device with the Kanno et al. device features because this type of joining allows an easy way of dismounting for repair or replacements of damage parts.

Regarding claim 6 Harada et al. in view of Watanabe et al. and Kanno et al. discloses the production method for an electrostatic chuck according to claim 5.

Kanno et al. further discloses wherein the feeder terminal portion is structured so as to be removably mounted to the substrate (Fig. 7 feeder bolted by elements 49).

Regarding claim 8 Harada et al. in view of Watanabe et al. and Kanno et al. discloses the production method for an electrostatic chuck according to claim 5.

Kanno et al. further discloses wherein the electrode provided in the feeder terminal portion is made of an elastic body.

Regarding claim 10 Harada et al. in view of Watanabe et al. and Kanno et al. discloses the production method for an electrostatic chuck according to claim 5.

Watanabe et al. further discloses wherein a recess is formed on the first dielectric layer, a portion of the internal electrode is exposed to the feeder terminal portion in the recess, the electrode being provided at the exposed portion of the internal electrode in the recess so as to be apart from the dielectric layer and project from the recess to the feeder terminal portion (Fig. 3 elements 24<second feeder pin>, 80<first feeder pin>, 16<connecting conductor>, 8<conductive film>, 4A<polyimide resin film>; notice that elements 8, 4A, 4B are bonding together).

### ***Response to Remarks/Arguments***

The examiner wishes to notice that Kanno et al. (US 6646233) teaches the technique of brazing elements in an electrostatic chuck (col. 15 lines 09-17<base 67 & dielectric 68 are integrated together by brazing>).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luis E. Román whose telephone number is 571-272-5527. The examiner can normally be reached on Mon – Fri from 7:15 AM to 3:45 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from Patent Application Information Retrieval (PAIR) system.

Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LR/081506

Luis E. Román  
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Art Unit 2836



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